

CCR Number: 0018

CRITICALITY: ROUTINE

DUE: 10/02/98

DISTRIBUTION SHEET
EO-1 LEVEL II CCB

Matt Jurotich/EO-1 Payload Manager

Pete Spidaliere/EO-1 Mission Mgr

Nick Speciale/EO-1 Mission Technologist

B.Zink/EO-1 Electrical Sys.

George Andrew/EO-1 Sys Avionics

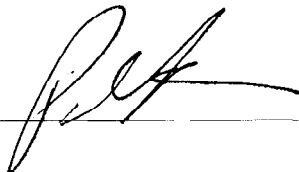
M. Perry/SYS Engineer/Swales

Mike Cully/S/C Mgr./GSFC

Brian Smith/S/C Engineer/GSFC

Terry Smith/EO-1 WARP Lead Engineer

NEW MILLENNIUM PROJECT CONFIGURATION CHANGE REQUEST

PROGRAM <u>EO-1</u>		TITLE CHANGES TO EO-1 S/C TO WARP ICD-26	
CCR NO. <u>0018</u>		ORIGINATOR <u>T. Smith/GSFC</u>	
MTE INITIATED <u>09/1</u> <u>6/98</u>		ORIGINATOR'S CHG. NO. _____	
		SPONSOR/CODE <u>T. Smith/EO-1 WARP</u> PHONE <u>x0651</u>	
EFFECTIVITY		CHANGE CLASS	
ITEM: <u>WARP</u>		I II	
S/N _____		PRELIMINARY <input type="checkbox"/> <input type="checkbox"/> DOCUMENT <input type="checkbox"/>	
ITEM: _____		FORMAL <input type="checkbox"/> <input type="checkbox"/> COST _____	
S/N _____		TYPE OF CHANGE	
ITEM: _____		MILESTONE <input type="checkbox"/> INTERFACE <input type="checkbox"/> SOFTWARE <input type="checkbox"/>	
S/N _____		POWER <input type="checkbox"/> OTHER <input type="checkbox"/>	
ITEM: _____		WEIGHT <input type="checkbox"/> <input type="checkbox"/>	
S/N _____		DOCUMENTS OR SOFTWARE AFFECTED	
		EO-1 ICD-026	
PROBLEM			
<p>The attached Preliminary Interface Revision Notice (PIRN) to EO-1 ICD-26, EO-1 S/C to Wideband Advanced Recorder Processor (WARP) Interface Control Document (ICD) provides for changes to the Interface document. This PIRN includes suggested changes that will be incorporated as an Interface revision and will be officially documented as such. The PIRN will become an official Interface change once the EO-1 project Configuration Control Board (CCB) chairman signs this CCR and the attached PIRN.</p>			
PROPOSED SOLUTION			
<p>¹²¹ Approve the attached PIRN 001 to EO-1 ICD-0026 by the EO-1 Level II Configuration Control Board (CCB). The signed off PIRN will serve as the official approval of changes to this ICD. Future changes will be initiated by submittal of Configuration Change Requests (CCRs) and Preliminary Interface Revision Notices (PIRNs) for CCB approval. This document is maintained by the EO-1 Configuration Management Office (CMO).</p>			
BOARD ACTION	APPROVAL LEVEL REQUIRED	CRITICALITY LEVEL	PROCUREMENT CHANGE ORDER CLASSIFICATION
APPROVE <input type="checkbox"/> E I	LEVEL I HQS <input type="checkbox"/>	EMERGENCY <input type="checkbox"/>	ROUTINE <input type="checkbox"/> URGENT <input type="checkbox"/> EMERGENCY <input type="checkbox"/>
APPROVE WITH CHANGE <input checked="" type="checkbox"/>	LEVEL II GSFC <input type="checkbox"/>	URGENT <input type="checkbox"/>	OPTION 1 <input type="checkbox"/> OPTION 1 <input type="checkbox"/>
DISAPPROVE <input type="checkbox"/>	LEVEL III <input type="checkbox"/> c I	ROUTINE <input checked="" type="checkbox"/>	OPTION 2 <input type="checkbox"/> OPTION 2 <input type="checkbox"/>
WITHDRAW <input type="checkbox"/>			
COMMENTS			
<p>Approve w/ change resulting in PIRN 1 TO ICD 26</p> <p>CHAIRPERSON <u></u> DATE <u>12 NOV 98</u></p>			

GODDARD SPACE FLIGHT CENTER		1. PAGE 1 OF 3
PRELIMINARY SPECIFICATION CHANGE NOTICE (PSCN) No. _____		2. INIT. DATE: 9/16/98
or PRELIMINARY INTERFACE REVISION NOTICE (PIRN) No. 001 <i>R</i> I		3. CONTRACT NUMBER
4. ASSOCIATED CONTROL NUMBERS: EO-1CCR 0018	5. CI'S AFFECTED: EO-1 SC TO WARP ICD-26	6. DOCUMENT NUMBER: REVISION:
7. DESCRIPTION OF CHANGE:		

1. Section 3.1 Interface Definition: Change

From: "The WARP is a spacecraft component that receives, stores, and processes high-rate science data and associated ancillary data. For the EO-1 mission, these science interfaces originate at the Advanced Land Imager (ALI) and the Linear Etalon Imaging Spectral Assy (LEISA) Atmospheric Corrector (LAC) "

To: "The WARP is a spacecraft component that receives, stores, and processes high-rate science data and associated ancillary data. For the EO-1 mission, these science interfaces originate at the Advanced Land Imager (ALI), and the Linear Etalon Imaging Spectral Assy (LEISA) Atmospheric Corrector (LAC) and Hyperion."

2. Change Figure 3-1 Warp Configuration

From:

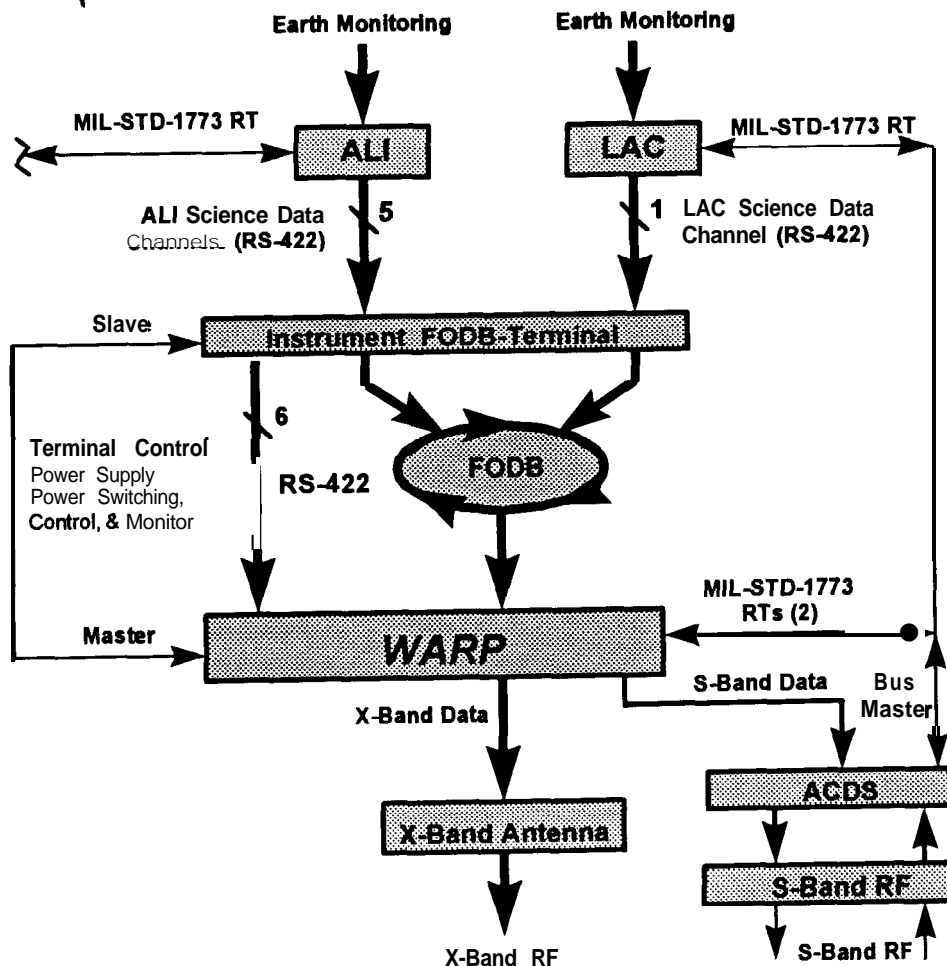
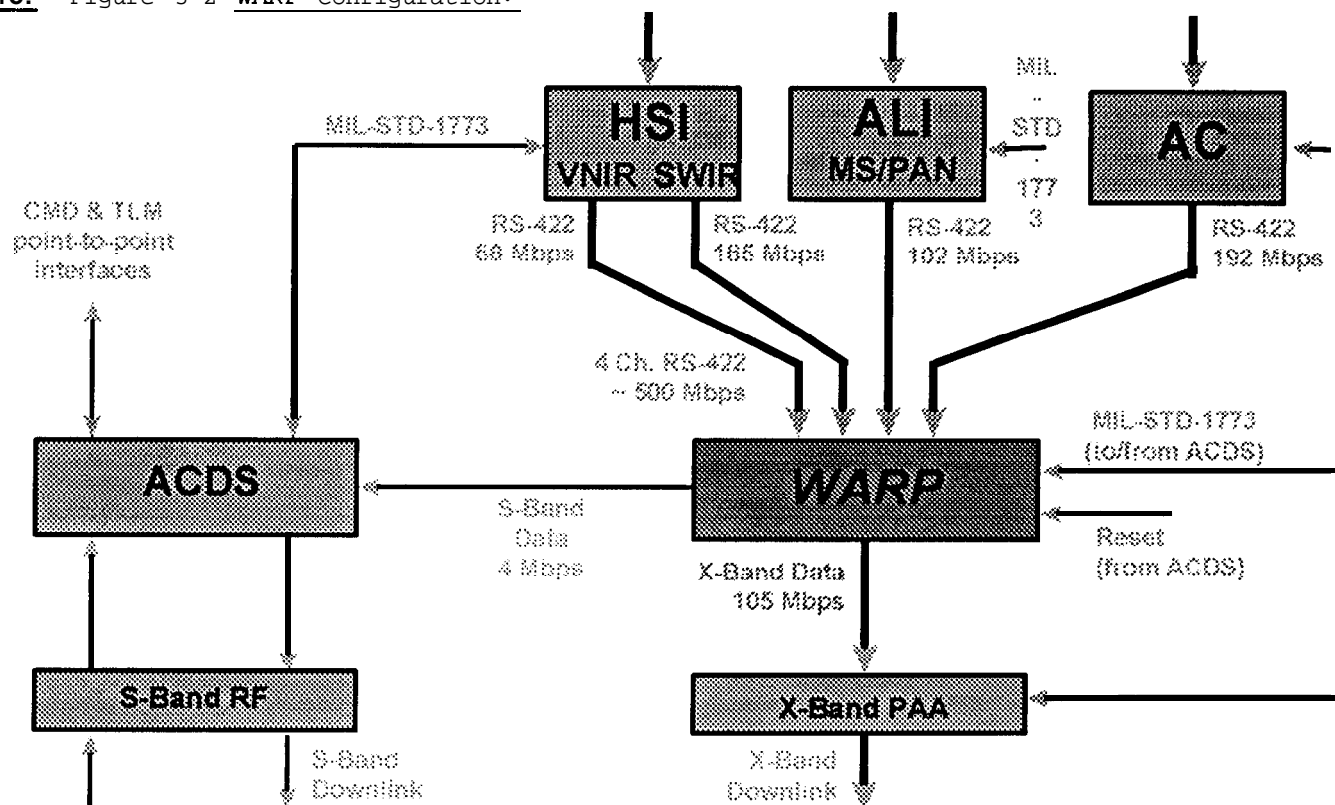


Figure 3-1. WARP Block Diagram

ro: Figure 3-2 WARP Configuration:



1. Add: the following to Section 3.1.1. Interface Functions:

f. Spacecraft provides discrete command for WARP boot mode.

. Change: Section 3.3.1 Electrical Interfaces

'rom: RS-422 from the Fiber Optic Data Bus (FOBD)

'0: RS-422 from **ALI**, AC, and Hyperion

. Add: To Section 3.3.1 Electrical Interfaces

Modulated X-Band to X-Band Phased Array Antenna

. Change: Section 3.3.1 Electrical Interfaces

'rom: In addition, there ^{is one} m-optical data bus ^{the} 1773, ~~and the high-rate FOBD~~

'o: In addition, there **is one** optical data bus: 1773 and the high-rate FOBD

. Change Section 3.3.2.1:

'rom: The +v28 power input from the spacecraft shall use a DB-9 connector.

'o: The tv28 power input ~~from the spacecraft~~ shall use a DB-15 ⁵⁶ connector on the **WARP**.

1R1

1R1

8. Change Table 3-4 Connector Pinout

From:

Pin Number	Connection
1	+28V
2	+28V
3	+28V
4	+28V
5	NC
6	GND
7	GND
8	GND
9	GND

To:

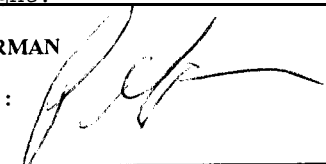
Pin Number	Connection
1	+28V
2	+28V
3	+28V
4	+28V
5	+28V
6	+28V
7	+28V
8	NC
9	+28V Return
10	+28V
11	+28V
12	+28V
13	+28V
14	+28V
15	+28V

9. DELETE: Table 3-6 WARP Power Consumption and the following sentence:
 "WARP power consumption is as shown in Table 3-6. Note that these values include the power consumption of the IFT, as its power is provided by the WARP."

10. DELETE: The following from Section 4 Deliverables:

"WARP TO IFT HARNESS GSFC SUALES 4/22/98

NOTE: Harness delivered at same time as flight.

PREPARED BY: S.Schneider/442 HST CCB ACTION APPROVED: <input checked="" type="checkbox"/> DISAPPROVED:	CCB CHAIRMAN SIGNATURE: 	DATE: 12 Nov 98 MINUTES No:
---	---	--------------------------------

11. change: Section 3.5.4 WARP to S-Band Transponder Interface

From: S-band interface will support the 4 Mbps

To: "S-band interface will support the 2 Mbps"

Date: Wed, 16 Sep 1998 16:21:07 -0400 (Eastern Daylight Time)
From: Administrator@hst-nic.hst.nasa.gov
Reply-to: (Matthew M. Jurotich)
Subject: CCR:0018 - DUE: 10/02/98 ROUTINE Level-2 Matthew M. Jurotic WWW-COMMENTS

USER : (Matthew M. Jurotich) sent the following comments on :

Date: 9/16/98
CCR Number: 0018
Sponsor: T. Smith/EO-1 WARP
Due Date: 10/02/98

CCR Title: CHANGES TO EO-1 S/C TO WARP ICD-26

Remote host: 128.183.213.58 Email Address: m.jurotich@gsfc.nasa.gov

APPROVAL STATUS: APPROVED
Note:

COMMENTS:

Date: Thu, 17 Sep 1998 12:21:59 -0400 (Eastern Daylight Time)
From: Administrator@hst-nic.hst.nasa.gov
Reply-to: (Nicholas Speciale)
Subject: CCR:0018 - DUE: 10/02/98 ROUTINE Level-2 Nicholas Special WWW-COMMENTS

USER : (Nicholas Speciale) sent the following comments on :

Date: 9/16/98
CCR Number: 0018
Sponsor: T. Smith/EO-1 WARP
Due Date: 10/02/98

CCR Title: CHANGES TO EO-1 S/C TO WARP ICD-26

Remote host: 128.183.212.178 Email Address: speciale@pop500.gsfc.nasa.gov

APPROVAL STATUS: APPROVED
Note:

COMMENTS:

Date: Tue, 22 Sep 1998 09:50:16 -0400 (Eastern Daylight Time)
From: Administrator <administrator@hst-nic.hst.nasa.gov>
Reply-to: (Evan Webb/561)
Subject: CCR:0018 - DUE: 10/02/98 ROUTINE Level-2 Evan Webb/56 WWW-COMMENTS

USER : (Evan Webb/561) sent the following comments on :

Date: 9/22/98
CCR Number: 0018
Sponsor: T. Smith/EO-1 WARP
Due Date: 10/02/98

CCR Title: CHANGES TO EO-1 S/C TO WARP ICD-26

Remote host: 128.183.152.160 Email Address: evan.webb@gsfc.nasa.gov

APPROVAL STATUS: APPROVED WITH COMMENTS
Note:

COMMENTS: Modifications to the changes listed:

- 6) The sentence should be "In addition there is one optical data bus, the 1773."
- 7) The sentence should read "The +28V power input shall use a DB-15P connector on the WARP"
- 8) The table has pins labelled incorrectly. Pins 9 - 15 should be labelled "+28V_Return".

To: terry.smith@gsfc.nasa.gov
From: Steve Schneider <sschneider@hst.nasa.gov>
Subject: CCR:0018 - DUE: 10/02/98 ROUTINE Level-2 Perry/ Swale WWW-COMMENTS
Cc:
Bcc:
Attached:

>Terry,
Just received this comment from Mark Perry. FYI. Pete Spidaliere is still reviewing this CCR and I believe he will be approving today.

Steve
Date: Tue, 10 Nov 1998 09:39:36 -0500 (Eastern Standard Time)
>From: Administrator <administrator@hst-nic.hst.nasa.gov>
>Reply-to: (Perry/ Swales)
>Subject: CCR:0018 - DUE: 10/02/98 ROUTINE
> Level-2
> Perry/ Swale WWW-COMMENTS
>
>USER : (Perry/ Swales) sent the following comments on :
>
>-----
>Date: 10 Nov 98
>CCR Number: 0018
>Sponsor: T. Smith/EO-1 WARP
>Due Date: 10/02/98
>-----
>CCR Title: CHANGES TO EO-1 S/C TO WARP ICD-26
>-----
>Remote host: 209.49.96.12 Email Address:
>-----
>APPROVAL STATUS: APPROVED WITH COMMENTS
>Note:
>-----
>COMMENTS: Approve with the changes defined in Evan Webb's comments.
>

EO-1 CCR SPONSOR RECOMMENDATION FORM

CCR NUMBER: 0018

CCR TITLE: Changes to EO-1 S/C to WARP ICD-26

CCR SPONSOR: Terry Smith/GSFC

COMMENTS RECEIVED:

Evan Webb/561: **Approve with comments:**

Regarding item No. 6: Change sentence to : "In addition, there is one optical data bus, the 1773."
Sponsor response: Agree, change PSCN item No. 6 to read as stated.

Item No. 7 the sentence should read: "The +28 V power input shall use a DB-15p connector on the WARP."
Sponsor response: Agree, change PSCN item No. 7 to read as stated.

Item No. 8 the Table has pins labeled incorrectly. Pins 9 - 15 should be labeled "+28 V_ Return".
Sponsor response: Agree, change PSCN item No. 8 to read as stated.

SPONSOR RECOMMENDATION: (Make changes to document where indicated, reference Sponsor Comments for changes to be implemented.)

I would also like to make an additional change in addition to the one approved above that is not referenced in the PSCN. Change section 3.3.4 on page 3-8: The phrase "S-band interface will support the 4-Mbps requirement" To: "S-band interface will support the **2**-Mbps requirement"

Approve _____ Approve with Change **X** Disapprove _____

SPONSOR/ORGANIZATION: Terry Smith/EO-1 Warp Lead System Engineer

DATE: October 14, 1998